

ACIDIC PRECIPITATION IN
ONTARIO STUDY

ANNUAL STATISTICS OF
CONCENTRATION CUMULATIVE AMBIENT
AIR MONITORING NETWORK, 1984

ARB-237-85-AQM

APIOS-04-86

January, 1986



Ministry
of the
Environment

The Honourable
Jim Bradley
Minister

Rod McLeod, Q.C.
Deputy Minister

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ACIDIC PRECIPITATION IN ONTARIO STUDY

**ANNUAL STATISTICS OF CONCENTRATION
CUMULATIVE AMBIENT AIR MONITORING NETWORK, 1984**

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**JANUARY 1986
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PART I
INTRODUCTION

INTRODUCTION

This report was prepared by William Chang of C. C. & C. Computer System. The statistical summaries presented in this report pertain to the 1984 analytical results obtained from the Acidic Precipitation in Ontario Study (APIOS) cumulative ambient air monitoring network. The relevant data can be obtained on request from the Air Resources Branch of the Ontario Ministry of the Environment. Any sample of which sampling period is less than 23 days or greater than 33 days is not included in the statistics calculations. All available data are utilized in the calculations except results reported as being unreliable (i.e., results are identified as unreasonable values by using the validation procedures; detailed description of the validation procedure is available from the Ministry upon request) or approximate (i.e., in exact results are reported due to laboratory difficulties, such as may be encountered in calibration or when the samples cannot be re-analyzed to confirm the reported values). In a very few cases, concentration levels exceeded the upper limit of the range of the chemical analysis. Rather than using the upper limit, a decision was made to exclude these values from the statistics generated in this report. Results labelled as W are replaced by "zero". W is the level which the analytical technique cannot distinguish from zero. If a level is recorded less than one detection limit T, a value corresponding to one half the detection limit is utilized for statistical calculations as reported in the statistical summaries. Note that T is normally about ten times W, and values above the T criteria are considered to be precise and accurate. W corresponds to approximately one standard deviation of low level duplicate of real samples. In the presented statistics summaries, "Total Sulphur" is calculated by the summation of sulphur of "Sulphur Dioxide" and "Sulphate".

The statistical summaries presented in Parts III to IV include number of samples, mean (arithmetic/geometric), standard deviation (arithmetic/geometric), maximum, minimum, quartiles. These statistics are for an average sampling period.

PART II

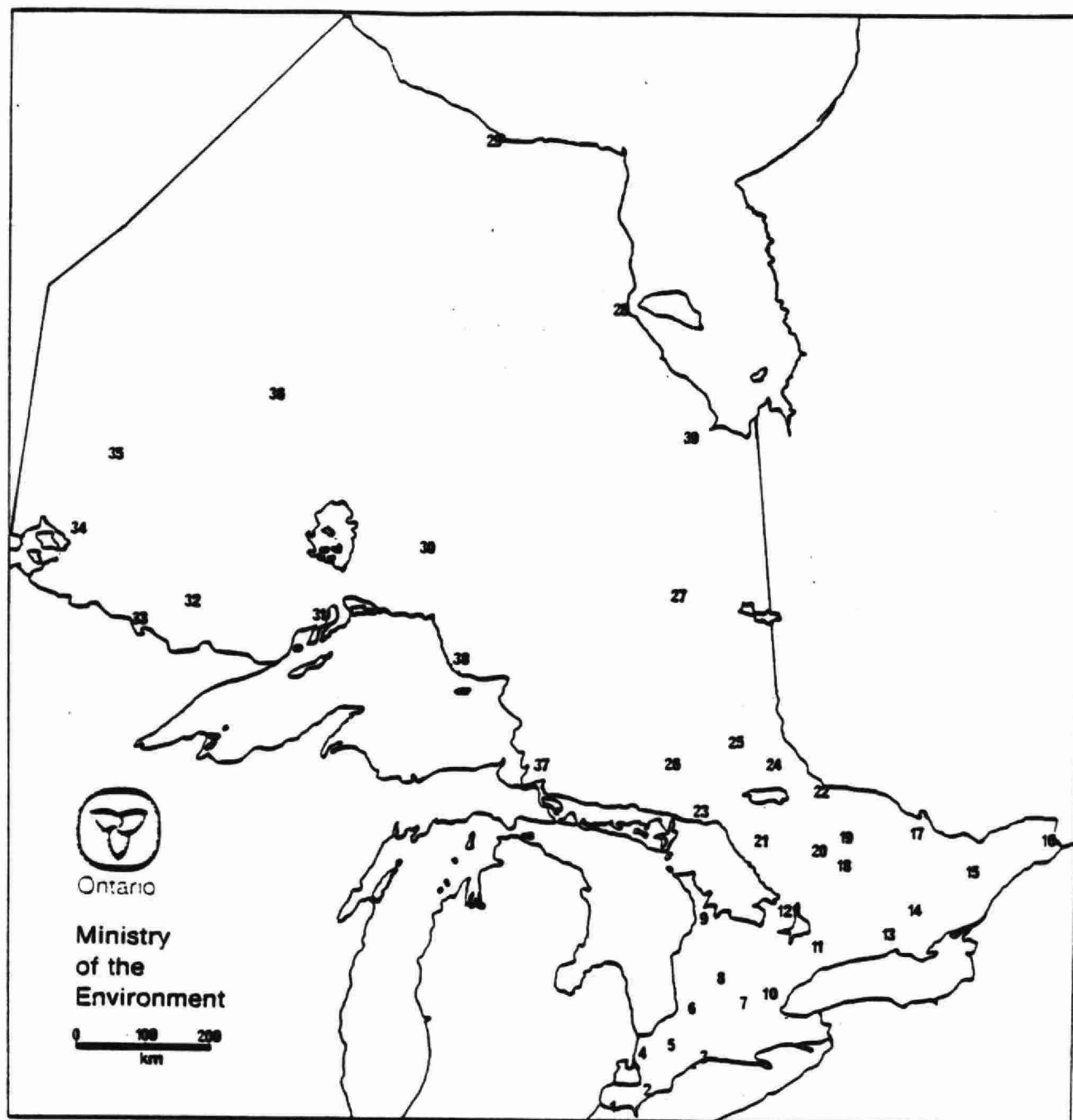
STATION DESCRIPTION AND LOCATION MAP

APIOS CUMULATIVE DRY DEPOSITION NETWORK SITE DESCRIPTION

MOE REGION	STATION NAME	ELEVATION (m above MSL)	LATITUDE (North)	LONGITUDE (West)	UTM COORDINATES (Northing) (Easting)	
Southwestern	Colchester	183	41°59'15"	82°55'41"	4650000	340300
	Port Stanley	213	42°40'22"	81°09'55"	4724050	486700
	Wilkesport	183	42°42'11"	82°21'13"	4728350	389150
	Shallow Lake	229	44°34'54"	81°05'24"	4936200	492850
	Palmerston	389	43°48'19"	80°54'12"	4850050	507750
Central	Dorset	320	45°13'26"	78°55'52"	5009650	662400
	Milton	221	43°31'05"	79°55'54"	4818600	586350
	Uxbridge	244	44°12'46"	79°12'38"	4896800	643000
	Campbellford	175	44°17'28"	77°47'33"	4907600	277150
Southeastern	Smith's Falls	122	44°56'41"	75°57'48"	4977100	423950
	Dalhousie Mills	69	45°19'00"	74°28'13"	5018100	541550
	Golden Lake	160	45°36'48"	77°12'03"	5053200	328400
Northeastern	Kaladar	244	44°41'31"	77°09'18"	4950800	329250
	Killarney	183	45°59'26"	81°29'18"	5092900	462200
	Mattawa	198	46°16'45"	78°49'19"	5127150	667800
	Gowganda	343	47°39'04"	80°46'32"	5277300	516600
	Moonbeam	244	49°19'16"	82°09'46"	5463600	416650
	Turkey Lake	472	47°03'15"	84°24'00"	5214250	696750
	Attawapskat	9	52°56'00"	NA	NA	
	Otter Island	204	48°06'50"	86°04'25"	6328750	569500
Northwestern	Dorion	244	48°50'33"	88°36'45"	5410800	382150
	Geraldton	351	49°48'05"	86°46'00"	5516300	516750
	Ear Falls	350	50°38'31"	93°13'13"	5609800	484150
	Pickle Lake	360	51°27'41"	90°12'04"	5704800	694550

FIGURE 1

LOCATION OF APIOS CUMULATIVE AMBIENT AIR MONITORING NETWORK SITES



- | | | |
|---------------------------------|-------------------------------|---------------------------------|
| 1. Colchester* | 15. Smith's Falls* | 29. Winisk |
| 2. Merlin | 16. Dalhousie Mills* | 30. Geraldton* |
| 3. Pt. Stanley* | 17. Golden Lake* | (replacing Nakina, August 1983) |
| 4. Wilkesport* | 18. Wilberforce | 31. Dorion* |
| 5. Alvinston | 19. Whitney | 32. Quetico Centre* |
| 6. Huron Park | 20. Dorset* | 33. Lac la Croix |
| 7. Waterloo | 21. McKellar* | 34. Experimental Lakes Area |
| 8. Palmerston* | 22. Mattawa* | 35. Ear Falls* |
| 9. Shallow Lake* | 23. Killarney* | 36. Pickle Lake* |
| 10. Milton (removed March 1984) | 24. Bear Island | 37. Turkey Lake* |
| 11. Uxbridge* | 25. Gowganda* | 38. Otter Island* |
| 12. Coldwater | 26. Azure Lake | (operated only during "summer" |
| 13. Campbellford* | (replacing Ramsey, June 1983) | periods) |
| 14. Cloyne* | 27. Moonbeam* | 39. Moosonee* |
| (replacing Kaledar, June 1983) | 28. Attawapiskat | (installed October, 1985) |
| | (removed February 1984) | |

* indicates both a dry and wet deposition network site

PART III

SUMMARY STATISTICS OF OBSERVED CONCENTRATION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : COLCHESTER/CUMULATIVE/LO-VOL #1

PERIOD OF REPORT : FEB 2,84 TO JAN 1,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	11	12	11	12	12	12	12	12	12
MAXIMUM :	19.50	11.19	11.12	1.58	1.03	1.00	0.49	0.188	0.312
MINIMUM :	4.27	3.81	4.04	1.00	0.45	0.44	0.14	0.080	0.102
RANGE :	15.23	7.38	7.08	0.58	0.57	0.56	0.35	0.108	0.210
ARITH. MEAN :	12.43	6.31	8.34	1.26	0.72	0.76	0.25	0.128	0.170
ARITH. STD. DEV :	5.01	2.21	2.38	0.17	0.15	0.21	0.10	0.033	0.067
GEOM. MEAN :	11.31	5.98	7.96	1.25	0.70	0.73	0.23	0.125	0.160
GEOM. STD. DEV. :	1.63	1.40	1.40	1.15	1.25	1.34	1.46	1.291	1.450
1ST QUARTILE :	7.27	4.38	5.79	1.14	0.65	0.58	0.16	0.104	0.113
2ND QUARTILE :	12.19	6.10	8.47	1.24	0.70	0.78	0.25	0.132	0.152
3RD QUARTILE :	16.11	7.35	9.88	1.40	0.80	0.97	0.29	0.143	0.216

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	12	12	12	12	12	12	12	12	12
MAXIMUM :	0.468	0.398	0.136	0.020	0.0066	0.00592	0.0025	0.070	0.00369
MINIMUM :	0.033	0.066	0.043	0.009	0.0006	0.00098	0.0006	0.035	0.00055
RANGE :	0.376	0.331	0.094	0.010	0.0059	0.00494	0.0018	0.034	0.00314
ARITH. MEAN :	0.267	0.202	0.079	0.015	0.0044	0.00251	0.0013	0.049	0.00123
ARITH. STD. DEV :	0.126	0.117	0.023	0.004	0.0016	0.00146	0.0007	0.009	0.00082
GEOM. MEAN :	0.240	0.174	0.076	0.014	0.0039	0.00218	0.0012	0.048	0.00109
GEOM. STD. DEV. :	1.626	1.768	1.323	1.302	1.8690	1.73223	1.6707	1.188	1.60700
1ST QUARTILE :	0.186	0.124	0.070	0.011	0.0036	0.00144	0.0007	0.043	0.00079
2ND QUARTILE :	0.206	0.137	0.074	0.016	0.0049	0.00217	0.0013	0.048	0.00102
3RD QUARTILE :	0.393	0.324	0.087	0.018	0.0055	0.00310	0.0017	0.053	0.00125

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PORT STANLEY/CUMULATIVE/LO-VOL #3

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	32.81	12.50	18.17	1.63	0.86	0.94	0.34	0.270	0.426
MINIMUM :	2.24	2.11	3.10	0.72	0.33	0.23	0.06	0.054	0.072
RANGE :	30.57	10.39	15.07	0.91	0.54	0.71	0.29	0.216	0.354
ARITH. MEAN :	10.44	5.53	7.06	1.13	0.56	0.53	0.14	0.117	0.146
ARITH. STD. DEV :	8.04	2.58	3.86	0.31	0.15	0.19	0.08	0.064	0.097
GEOM. MEAN :	8.17	5.06	6.36	1.09	0.54	0.49	0.12	0.104	0.126
GEOM. STD. DEV. :	2.10	1.55	1.58	1.33	1.31	1.50	1.66	1.639	1.690
1ST QUARTILE :	3.97	3.84	4.49	0.85	0.46	0.36	0.08	0.070	0.080
2ND QUARTILE :	8.86	5.22	6.28	1.13	0.52	0.56	0.11	0.091	0.114
3RD QUARTILE :	11.60	5.95	7.31	1.27	0.60	0.61	0.14	0.124	0.161

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	0.526	0.394	0.124	0.021	0.0063	0.00824	0.0035	0.048	0.00137
MINIMUM :	0.070	0.042	0.026	0.006	0.0018	0.00059	0.0006	0.016	0.00044
RANGE :	0.456	0.352	0.098	0.015	0.0045	0.00765	0.0029	0.032	0.00093
ARITH. MEAN :	0.218	0.151	0.053	0.012	0.0034	0.00257	0.0015	0.032	0.00068
ARITH. STD. DEV :	0.138	0.101	0.023	0.004	0.0014	0.00208	0.0009	0.011	0.00025
GEOM. MEAN :	0.182	0.125	0.050	0.012	0.0032	0.00200	0.0013	0.031	0.00064
GEOM. STD. DEV. :	1.865	1.877	1.435	1.412	1.4804	2.06647	1.7412	1.439	1.35632
1ST QUARTILE :	0.121	0.085	0.041	0.010	0.0022	0.00102	0.0007	0.022	0.00052
2ND QUARTILE :	0.152	0.109	0.047	0.011	0.0028	0.00200	0.0012	0.034	0.00061
3RD QUARTILE :	0.263	0.167	0.053	0.013	0.0041	0.00251	0.0016	0.040	0.00069

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILKESPORT/CUMULATIVE/LO-VOL #4

PERIOD OF REPORT : JAN 31,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	11	10	10	11	11	11	11	11	11
MAXIMUM :	25.26	10.52	14.83	1.93	1.05	2.00	0.29	0.274	0.305
MINIMUM :	4.94	3.96	4.34	0.80	0.52	0.42	0.09	0.052	0.075
RANGE :	20.32	6.56	10.49	1.13	0.54	1.58	0.21	0.222	0.230
ARITH. MEAN :	11.96	5.89	7.97	1.19	0.73	0.87	0.16	0.112	0.143
ARITH. STD. DEV :	6.85	2.12	3.68	0.33	0.19	0.46	0.07	0.067	0.077
GEOM. MEAN :	10.42	5.59	7.30	1.15	0.71	0.78	0.15	0.098	0.128
GEOM. STD. DEV. :	1.72	1.39	1.54	1.30	1.29	1.60	1.49	1.705	1.594
1ST QUARTILE :	6.45	4.17	4.96	0.87	0.54	0.47	0.09	0.060	0.092
2ND QUARTILE :	8.82	4.92	6.51	1.15	0.66	0.76	0.14	0.075	0.101
3RD QUARTILE :	15.66	6.97	9.61	1.34	0.87	0.93	0.18	0.143	0.175

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	11	11	11	11	11	11	11	11	11
MAXIMUM :	0.850	0.801	0.081	0.019	0.0087	0.00801	0.0044	0.075	0.00101
MINIMUM :	0.071	0.061	0.042	0.007	0.0017	0.00032	0.0008	0.020	0.00037
RANGE :	0.779	0.740	0.039	0.012	0.0070	0.00769	0.0036	0.055	0.00064
ARITH. MEAN :	0.252	0.214	0.059	0.012	0.0041	0.00263	0.0019	0.038	0.00068
ARITH. STD. DEV :	0.216	0.213	0.014	0.003	0.0019	0.00220	0.0010	0.016	0.00021
GEOM. MEAN :	0.202	0.161	0.057	0.011	0.0038	0.00189	0.0017	0.035	0.00065
GEOM. STD. DEV. :	1.913	2.049	1.267	1.306	1.5538	2.50555	1.6535	1.478	1.39685
1ST QUARTILE :	0.131	0.108	0.045	0.009	0.0025	0.00096	0.0009	0.023	0.00046
2ND QUARTILE :	0.173	0.117	0.054	0.011	0.0038	0.00205	0.0017	0.034	0.00064
3RD QUARTILE :	0.271	0.222	0.070	0.013	0.0048	0.00293	0.0022	0.045	0.00086

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PALMERSTON/CUMULATIVE/LO-VOL #8

PERIOD OF REPORT : JAN 31,84 TO DEC 31,84

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	12	12	12	12	12	12	12	12	12
MAXIMUM :	17.35	9.07	10.35	1.67	0.82	1.01	0.38	0.267	0.203
MINIMUM :	1.78	3.27	2.43	0.66	0.35	0.31	0.10	0.037	0.047
RANGE :	15.57	5.80	7.92	1.01	0.47	0.70	0.28	0.230	0.156
ARITH. MEAN :	4.73	4.93	4.01	0.97	0.45	0.59	0.20	0.094	0.107
ARITH. STD. DEV :	4.25	1.61	2.09	0.33	0.14	0.24	0.10	0.061	0.051
GEOM. MEAN :	3.79	4.73	3.70	0.93	0.44	0.55	0.18	0.082	0.097
GEOM. STD. DEV. :	1.86	1.33	1.45	1.37	1.29	1.49	1.61	1.653	1.603
1ST QUARTILE :	2.74	3.90	2.97	0.71	0.36	0.39	0.13	0.065	0.066
2ND QUARTILE :	3.00	4.60	3.49	0.87	0.40	0.51	0.15	0.074	0.102
3RD QUARTILE :	5.52	5.10	4.04	1.17	0.47	0.80	0.26	0.095	0.140

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	12	12	12	12	12	12	12	12	12
MAXIMUM :	0.330	0.329	0.073	0.014	0.0069	0.00631	0.0028	0.047	0.00082
MINIMUM :	0.060	0.055	0.019	0.006	0.0005	0.00031	0.0006	0.015	0.00030
RANGE :	0.271	0.274	0.055	0.008	0.0064	0.00600	0.0022	0.032	0.00052
ARITH. MEAN :	0.174	0.155	0.049	0.009	0.0034	0.00203	0.0011	0.023	0.00057
ARITH. STD. DEV :	0.087	0.105	0.016	0.002	0.0018	0.00178	0.0007	0.008	0.00013
GEOM. MEAN :	0.155	0.125	0.046	0.009	0.0029	0.00136	0.0010	0.022	0.00055
GEOM. STD. DEV. :	1.676	1.960	1.467	1.292	1.9661	2.71343	1.7565	1.326	1.30478
1ST QUARTILE :	0.108	0.068	0.039	0.008	0.0027	0.00056	0.0006	0.019	0.00055
2ND QUARTILE :	0.146	0.099	0.048	0.009	0.0029	0.00162	0.0007	0.021	0.00057
3RD QUARTILE :	0.256	0.270	0.063	0.011	0.0037	0.00313	0.0016	0.025	0.00063

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SHALLOW LAKE/CUMULATIVE/LO-VOL #9

PERIOD OF REPORT : JAN 11,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	11	11	11	11	11	11	11	11	11
MAXIMUM :	30.72	7.39	16.74	1.45	0.53	0.70	0.17	0.164	0.267
MINIMUM :	0.75	2.89	2.08	0.22	0.25	0.14	0.04	0.047	0.050
RANGE :	29.97	4.50	14.66	1.23	0.28	0.55	0.14	0.117	0.218
ARITH. MEAN :	7.30	4.36	5.10	0.78	0.37	0.35	0.10	0.083	0.113
ARITH. STD. DEV :	8.66	1.31	4.24	0.40	0.09	0.16	0.04	0.035	0.071
GEOM. MEAN :	4.40	4.20	4.16	0.68	0.36	0.32	0.09	0.078	0.096
GEOM. STD. DEV. :	2.86	1.31	1.83	1.79	1.26	1.56	1.57	1.443	1.779
1ST QUARTILE :	1.99	3.41	2.66	0.41	0.29	0.21	0.06	0.059	0.055
2ND QUARTILE :	3.22	4.08	3.35	0.58	0.34	0.32	0.09	0.067	0.079
3RD QUARTILE :	8.08	4.32	5.05	1.10	0.41	0.39	0.12	0.092	0.160

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	11	11	11	11	11	11	11	11	11
MAXIMUM :	0.219	0.255	0.042	0.011	0.0059	0.00252	0.0024	0.031	0.00085
MINIMUM :	0.031	0.021	0.025	0.004	0.0015	0.00030	0.0006	0.011	0.00037
RANGE :	0.188	0.234	0.017	0.007	0.0044	0.00222	0.0018	0.020	0.00048
ARITH. MEAN :	0.113	0.098	0.033	0.007	0.0031	0.00146	0.0010	0.017	0.00057
ARITH. STD. DEV :	0.063	0.074	0.005	0.002	0.0013	0.00074	0.0005	0.006	0.00015
GEOM. MEAN :	0.096	0.076	0.032	0.006	0.0029	0.00122	0.0009	0.016	0.00055
GEOM. STD. DEV. :	1.833	2.152	1.163	1.330	1.4789	2.02671	1.5549	1.396	1.31316
1ST QUARTILE :	0.062	0.038	0.028	0.005	0.0022	0.00071	0.0006	0.011	0.00040
2ND QUARTILE :	0.089	0.069	0.031	0.006	0.0026	0.00142	0.0007	0.014	0.00053
3RD QUARTILE :	0.153	0.121	0.036	0.007	0.0033	0.00200	0.0011	0.018	0.00068

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MILTON/CUMULATIVE/LO-VOL #10

PERIOD OF REPORT : JAN 3,84 TO MAR 27,84

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES	3	3	3	3	3	3	3	3	2
MAXIMUM	29.25	5.61	16.32	1.48	1.55	0.96	0.25	0.101	0.577
MINIMUM	15.65	5.09	9.54	0.95	1.35	0.36	0.11	0.051	0.473
RANGE	13.60	0.52	6.78	0.53	0.20	0.60	0.14	0.051	0.103
ARITH. MEAN	23.65	5.29	13.59	1.23	1.44	0.61	0.16	0.080	0.525
ARITH. STD. DEV	7.11	0.28	3.57	0.27	0.10	0.31	0.08	0.026	0.073
GEOM. MEAN	22.84	5.28	13.24	1.21	1.44	0.56	0.15	0.077	0.522
GEOM. STD. DEV.	1.39	1.05	1.33	1.25	1.07	1.65	1.56	1.444	1.150
1ST QUARTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****
2ND QUARTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****
3RD QUARTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES	3	3	3	3	3	3	3	3	3
MAXIMUM	0.137	0.132	0.209	0.016	0.0133	0.01012	0.0020	0.129	0.00101
MINIMUM	0.084	0.036	0.089	0.013	0.0035	0.00029	0.0006	0.049	0.00060
RANGE	0.053	0.095	0.119	0.003	0.0099	0.00983	0.0014	0.080	0.00041
ARITH. MEAN	0.109	0.072	0.147	0.015	0.0069	0.00416	0.0011	0.082	0.00079
ARITH. STD. DEV	0.027	0.052	0.060	0.001	0.0056	0.00523	0.0008	0.042	0.00021
GEOM. MEAN	0.107	0.062	0.139	0.015	0.0057	0.00183	0.0010	0.075	0.00078
GEOM. STD. DEV.	1.278	1.958	1.532	1.106	2.0947	5.93457	1.9139	1.638	1.29661
1ST QUARTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****
2ND QUARTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****
3RD QUARTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : UXBRIDGE/CUMULATIVE/LO-VOL #11

PERIOD OF REPORT : JAN 2,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	9	9	9	8	9	9	9	9	9
MAXIMUM :	23.87	9.17	13.35	1.81	1.29	5.49	0.35	0.156	0.449
MINIMUM :	0.75	2.48	2.65	0.37	0.33	0.16	0.04	0.026	0.060
RANGE :	23.12	6.69	10.70	1.45	0.96	5.33	0.31	0.130	0.389
ARITH. MEAN :	7.78	4.82	5.49	0.89	0.57	1.68	0.13	0.076	0.227
ARITH. STD. DEV :	7.68	2.19	3.75	0.49	0.30	2.10	0.11	0.038	0.133
GEOM. MEAN :	5.04	4.44	4.65	0.77	0.52	0.81	0.10	0.068	0.190
GEOM. STD. DEV. :	2.81	1.51	1.79	1.77	1.54	3.57	2.27	1.663	1.952
1ST QUARTILE :	2.92	3.35	2.91	0.51	0.39	0.37	0.05	0.054	0.112
2ND QUARTILE :	3.99	3.96	3.44	0.74	0.46	0.45	0.07	0.060	0.176
3RD QUARTILE :	7.31	4.71	5.37	1.20	0.50	1.52	0.14	0.081	0.303

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	9	9	9	9	9	9	9	9	9
MAXIMUM :	0.738	0.877	0.156	0.043	0.0219	0.00332	0.0039	0.078	0.00117
MINIMUM :	0.032	0.020	0.014	0.004	0.0014	0.00031	0.0006	0.007	0.00049
RANGE :	0.706	0.857	0.143	0.039	0.0204	0.00301	0.0033	0.071	0.00068
ARITH. MEAN :	0.269	0.230	0.065	0.014	0.0056	0.00188	0.0013	0.030	0.00070
ARITH. STD. DEV :	0.265	0.297	0.040	0.013	0.0065	0.00103	0.0011	0.021	0.00021
GEOM. MEAN :	0.158	0.112	0.054	0.011	0.0037	0.00146	0.0010	0.025	0.00068
GEOM. STD. DEV. :	3.220	3.647	1.943	2.213	2.4075	2.43144	1.9546	2.010	1.30919
1ST QUARTILE :	0.053	0.033	0.039	0.006	0.0019	0.00087	0.0006	0.016	0.00054
2ND QUARTILE :	0.130	0.096	0.062	0.008	0.0027	0.00205	0.0007	0.024	0.00064
3RD QUARTILE :	0.316	0.169	0.065	0.012	0.0046	0.00229	0.0009	0.030	0.00072

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CAMPBELLFORD/CUMULATIVE/LO-VOL #13

PERIOD OF REPORT : JAN 3,84 TO NOV 6,84

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIUM UG/M**3	POTASSIUM UG/M**3	SODIUM UG/M**3
# OF SAMPLES	10	10	10	10	10	10	10	10	10
MAXIMUM	19.80	8.55	11.51	1.15	0.56	2.80	0.15	0.164	0.359
MINIMUM	0.86	2.42	1.24	0.16	0.13	0.31	0.04	0.056	0.058
RANGE	18.94	6.13	10.27	0.99	0.43	2.50	0.11	0.108	0.302
ARITH. MEAN	5.81	4.77	4.49	0.63	0.34	1.19	0.09	0.104	0.144
ARITH. STD. DEV.	6.43	1.85	3.32	0.32	0.13	0.78	0.04	0.035	0.102
GEOM. MEAN	3.27	4.45	3.53	0.55	0.31	0.97	0.09	0.098	0.118
GEOM. STD. DEV.	3.14	1.48	2.09	1.81	1.54	2.00	1.59	1.426	1.913
1ST QUARTILE	1.13	3.01	1.63	0.37	0.22	0.49	0.05	0.070	0.061
2ND QUARTILE	2.42	4.90	3.43	0.56	0.34	1.04	0.10	0.105	0.104
3RD QUARTILE	7.79	5.65	5.49	0.79	0.39	1.33	0.12	0.128	0.179

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	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANESE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES	10	10	10	10	10	10	10	10	10
MAXIMUM	0.296	0.397	0.073	0.014	0.0054	0.00539	0.0034	0.029	0.00401
MINIMUM	0.049	0.028	0.028	0.005	0.0010	0.00032	0.0006	0.014	0.00025
RANGE	0.247	0.369	0.045	0.009	0.0044	0.00506	0.0028	0.015	0.00376
ARITH. MEAN	0.169	0.169	0.049	0.009	0.0031	0.00210	0.0012	0.021	0.00085
ARITH. STD. DEV.	0.101	0.129	0.016	0.003	0.0015	0.00156	0.0009	0.006	0.00112
GEOM. MEAN	0.137	0.117	0.046	0.009	0.0028	0.00164	0.0010	0.020	0.00059
GEOM. STD. DEV.	2.077	2.667	1.388	1.449	1.6877	2.20133	1.8612	1.307	2.12299
1ST QUARTILE	0.056	0.038	0.035	0.006	0.0018	0.00099	0.0006	0.016	0.00036
2ND QUARTILE	0.177	0.145	0.044	0.009	0.0030	0.00169	0.0007	0.019	0.00052
3RD QUARTILE	0.246	0.262	0.058	0.011	0.0039	0.00205	0.0012	0.025	0.00061

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SMITH'S FALLS/CUMULATIVE/LO-VOL #15

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	11	12	11	12	12	12	12	12	12
MAXIMUM :	18.92	8.24	11.20	1.11	0.88	2.44	1.01	0.149	0.678
MINIMUM :	0.40	2.38	1.51	0.32	0.21	0.18	0.05	0.069	0.060
RANGE :	18.52	5.86	9.69	0.79	0.67	2.26	0.95	0.079	0.618
ARITH. MEAN :	5.15	4.51	4.14	0.63	0.44	0.91	0.35	0.098	0.244
ARITH. STD. DEV :	5.60	1.84	2.81	0.25	0.23	0.71	0.31	0.028	0.205
GEOM. MEAN :	3.09	4.19	3.53	0.59	0.39	0.70	0.25	0.095	0.178
GEOM. STD. DEV. :	3.02	1.49	1.76	1.48	1.62	2.17	2.38	1.312	2.272
1ST QUARTILE :	1.20	2.86	2.35	0.43	0.29	0.45	0.13	0.075	0.102
2ND QUARTILE :	2.64	4.54	3.10	0.57	0.31	0.58	0.23	0.088	0.146
3RD QUARTILE :	6.03	5.66	4.20	0.83	0.60	1.43	0.55	0.122	0.429

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	12	12	12	12	12	12	12	12	12
MAXIMUM :	0.381	0.462	0.148	0.022	0.0080	0.00569	0.0040	0.033	0.00071
MINIMUM :	0.040	0.031	0.021	0.007	0.0013	0.00114	0.0005	0.015	0.00024
RANGE :	0.341	0.431	0.127	0.015	0.0067	0.00455	0.0034	0.018	0.00047
ARITH. MEAN :	0.172	0.167	0.061	0.014	0.0037	0.00254	0.0017	0.021	0.00049
ARITH. STD. DEV :	0.115	0.144	0.033	0.005	0.0017	0.00137	0.0012	0.006	0.00015
GEOM. MEAN :	0.135	0.113	0.054	0.013	0.0034	0.00225	0.0013	0.020	0.00047
GEOM. STD. DEV. :	2.148	2.616	1.653	1.432	1.5812	1.66624	2.1957	1.332	1.38499
1ST QUARTILE :	0.081	0.047	0.039	0.010	0.0027	0.00140	0.0006	0.016	0.00037
2ND QUARTILE :	0.130	0.115	0.055	0.014	0.0032	0.00207	0.0010	0.018	0.00051
3RD QUARTILE :	0.277	0.243	0.068	0.018	0.0044	0.00326	0.0027	0.024	0.00061

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DALHOUSIE MILLS/CUMULATIVE/LO-VOL #16

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	22.44	6.87	13.23	1.43	0.97	0.97	0.14	0.231	0.542
MINIMUM :	0.99	2.87	1.51	0.35	0.31	0.28	0.05	0.075	0.104
RANGE :	21.45	4.00	11.72	1.08	0.66	0.69	0.09	0.157	0.438
ARITH. MEAN :	5.23	4.76	4.20	0.72	0.51	0.65	0.10	0.140	0.261
ARITH. STD. DEV. :	6.54	1.36	3.45	0.35	0.23	0.23	0.03	0.046	0.177
GEOM. MEAN :	2.94	4.58	3.35	0.65	0.47	0.61	0.10	0.133	0.212
GEOM. STD. DEV. :	2.87	1.34	1.92	1.56	1.51	1.49	1.32	1.386	1.944
1ST QUARTILE :	1.27	3.72	2.13	0.43	0.34	0.46	0.08	0.110	0.111
2ND QUARTILE :	1.94	4.11	2.62	0.61	0.37	0.67	0.10	0.127	0.173
3RD QUARTILE :	5.22	5.81	4.18	0.78	0.63	0.81	0.11	0.155	0.353

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	0.280	0.311	0.109	0.062	0.0067	0.00553	0.0096	0.052	0.00096
MINIMUM :	0.066	0.044	0.043	0.008	0.0012	0.00048	0.0007	0.022	0.00037
RANGE :	0.214	0.267	0.067	0.054	0.0055	0.00505	0.0088	0.030	0.00058
ARITH. MEAN :	0.164	0.150	0.081	0.027	0.0045	0.00332	0.0032	0.033	0.00064
ARITH. STD. DEV. :	0.070	0.098	0.023	0.020	0.0016	0.00142	0.0028	0.010	0.00019
GEOM. MEAN :	0.150	0.123	0.077	0.022	0.0042	0.00290	0.0022	0.032	0.00062
GEOM. STD. DEV. :	1.569	1.947	1.369	2.021	1.5787	1.87952	2.5499	1.332	1.36069
1ST QUARTILE :	0.110	0.068	0.061	0.013	0.0037	0.00226	0.0008	0.024	0.00050
2ND QUARTILE :	0.146	0.111	0.076	0.017	0.0045	0.00312	0.0022	0.030	0.00062
3RD QUARTILE :	0.195	0.186	0.102	0.035	0.0051	0.00380	0.0041	0.038	0.00073

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GOLDEN LAKE/CUMULATIVE/LO-VOL #17

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	10.42	4.37	6.39	0.69	0.45	0.24	0.08	0.283	0.327
MINIMUM :	0.19	0.97	0.42	0.07	0.03	0.10	0.03	0.019	0.009
RANGE :	10.23	3.40	5.97	0.63	0.43	0.14	0.05	0.264	0.318
ARITH. MEAN :	2.53	2.69	2.16	0.27	0.19	0.16	0.05	0.082	0.114
ARITH. STD. DEV :	2.92	0.98	1.63	0.19	0.10	0.05	0.01	0.066	0.095
GEOM. MEAN :	1.44	2.51	1.71	0.21	0.16	0.15	0.05	0.066	0.080
GEOM. STD. DEV. :	3.14	1.50	2.06	2.05	1.94	1.38	1.30	1.912	2.547
1ST QUARTILE :	0.59	2.20	1.16	0.13	0.14	0.12	0.04	0.046	0.046
2ND QUARTILE :	1.20	2.34	1.65	0.20	0.16	0.14	0.05	0.064	0.069
3RD QUARTILE :	2.77	3.24	2.33	0.30	0.20	0.21	0.05	0.081	0.135

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	0.175	0.196	0.067	0.007	0.0055	0.00377	0.0022	0.017	0.00067
MINIMUM :	0.037	0.016	0.013	0.003	0.0003	0.00028	0.0005	0.006	0.00017
RANGE :	0.143	0.181	0.054	0.004	0.0052	0.00349	0.0017	0.011	0.00050
ARITH. MEAN :	0.085	0.070	0.027	0.005	0.0028	0.00177	0.0011	0.010	0.00042
ARITH. STD. DEV :	0.043	0.056	0.015	0.001	0.0013	0.00119	0.0006	0.004	0.00012
GEOM. MEAN :	0.076	0.051	0.024	0.005	0.0024	0.00130	0.0009	0.010	0.00040
GEOM. STD. DEV. :	1.627	2.336	1.589	1.284	2.0436	2.50952	1.6767	1.401	1.38553
1ST QUARTILE :	0.052	0.025	0.017	0.004	0.0021	0.00061	0.0006	0.007	0.00035
2ND QUARTILE :	0.065	0.039	0.019	0.004	0.0027	0.00153	0.0007	0.009	0.00043
3RD QUARTILE :	0.104	0.106	0.029	0.006	0.0029	0.00233	0.0014	0.012	0.00046

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/CUMULATIVE/LO-VOL #20

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	18.87	6.78	10.64	0.84	0.27	0.46	0.13	1.387	0.211
MINIMUM :	0.42	2.03	0.98	0.16	0.09	0.04	0.02	0.040	0.039
RANGE :	18.45	4.74	9.66	0.69	0.18	0.41	0.11	1.347	0.173
ARITH. MEAN :	4.26	3.72	3.37	0.39	0.17	0.15	0.05	0.175	0.098
ARITH. STD. DEV. :	5.35	1.49	2.68	0.22	0.06	0.12	0.03	0.365	0.052
GEOM. MEAN :	2.30	3.48	2.69	0.34	0.16	0.12	0.04	0.087	0.087
GEOM. STD. DEV. :	3.13	1.46	1.95	1.68	1.41	2.05	1.79	2.455	1.674
1ST QUARTILE :	1.07	2.54	1.79	0.22	0.13	0.06	0.03	0.049	0.053
2ND QUARTILE :	1.75	3.19	2.19	0.31	0.16	0.10	0.03	0.065	0.088
3RD QUARTILE :	4.27	4.09	3.59	0.40	0.21	0.16	0.05	0.097	0.106

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	0.356	0.398	0.049	0.015	0.0066	0.00373	0.0020	0.019	0.00077
MINIMUM :	0.023	0.013	0.012	0.003	0.0011	0.00031	0.0003	0.006	0.00039
RANGE :	0.333	0.384	0.038	0.013	0.0055	0.00342	0.0017	0.013	0.00038
ARITH. MEAN :	0.121	0.117	0.024	0.006	0.0029	0.00152	0.0008	0.011	0.00050
ARITH. STD. DEV. :	0.106	0.133	0.010	0.004	0.0017	0.00121	0.0004	0.004	0.00012
GEOM. MEAN :	0.087	0.063	0.023	0.005	0.0025	0.00102	0.0007	0.011	0.00049
GEOM. STD. DEV. :	2.296	3.149	1.450	1.744	1.7730	2.71096	1.5569	1.419	1.24337
1ST QUARTILE :	0.048	0.028	0.019	0.003	0.0015	0.00033	0.0006	0.009	0.00041
2ND QUARTILE :	0.063	0.035	0.021	0.004	0.0029	0.00106	0.0007	0.010	0.00044
3RD QUARTILE :	0.134	0.129	0.025	0.006	0.0031	0.00234	0.0007	0.014	0.00055

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MCKELLAR/CUMULATIVE/LO-VOL #21

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES	11	11	11	11	11	11	11	10	11
MAXIMUM	9.63	9.10	5.83	0.72	0.91	0.36	0.10	0.140	0.445
MINIMUM	0.00	0.42	1.03	0.12	0.09	0.04	0.01	0.003	0.028
RANGE	9.63	8.68	4.80	0.60	0.82	0.32	0.08	0.137	0.417
ARITH. MEAN	2.51	3.36	2.38	0.35	0.28	0.18	0.05	0.055	0.127
ARITH. STD. DEV	2.90	2.27	1.37	0.20	0.25	0.12	0.03	0.039	0.121
GEOM. MEAN	1.33	2.68	2.11	0.30	0.22	0.14	0.04	0.040	0.094
GEOM. STD. DEV.	4.92	2.19	1.64	1.84	2.05	2.20	1.88	2.769	2.166
1ST QUARTILE	0.30	1.63	1.44	0.16	0.10	0.07	0.02	0.026	0.053
2ND QUARTILE	1.65	2.85	1.79	0.30	0.19	0.10	0.04	0.048	0.080
3RD QUARTILE	2.49	4.04	2.84	0.44	0.29	0.29	0.06	0.068	0.129

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES	11	11	11	11	11	11	11	11	11
MAXIMUM	0.212	0.224	0.037	0.008	0.0054	0.00717	0.0013	0.033	0.00123
MINIMUM	0.020	0.009	0.008	0.001	0.0011	0.00027	0.0003	0.003	0.00024
RANGE	0.193	0.214	0.029	0.007	0.0044	0.00690	0.0010	0.030	0.00099
ARITH. MEAN	0.093	0.086	0.023	0.004	0.0023	0.00186	0.0007	0.014	0.00051
ARITH. STD. DEV	0.071	0.080	0.008	0.002	0.0015	0.00199	0.0003	0.008	0.00027
GEOM. MEAN	0.067	0.051	0.021	0.004	0.0020	0.00121	0.0006	0.012	0.00046
GEOM. STD. DEV.	2.430	3.269	1.560	1.971	1.7191	2.67904	1.6673	1.864	1.57711
1ST QUARTILE	0.026	0.013	0.014	0.002	0.0012	0.00049	0.0004	0.008	0.00030
2ND QUARTILE	0.053	0.052	0.023	0.004	0.0016	0.00116	0.0006	0.013	0.00044
3RD QUARTILE	0.158	0.132	0.026	0.006	0.0023	0.00213	0.0009	0.016	0.00058

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MATTAWA/CUMULATIVE/LO-VOL #22

PERIOD OF REPORT : JAN 4,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	8.28	4.77	5.29	0.47	0.58	0.38	0.41	0.134	0.413
MINIMUM :	0.01	0.12	0.19	0.03	0.09	0.05	0.01	0.033	0.021
RANGE :	8.28	4.65	5.10	0.44	0.49	0.33	0.40	0.102	0.392
ARITH. MEAN :	2.79	2.85	2.34	0.21	0.24	0.18	0.15	0.084	0.136
ARITH. STD. DEV :	2.46	1.13	1.33	0.13	0.13	0.11	0.13	0.028	0.127
GEOM. MEAN :	1.36	2.33	1.89	0.18	0.21	0.15	0.10	0.079	0.094
GEOM. STD. DEV. :	6.44	2.53	2.27	2.04	1.68	1.93	2.95	1.466	2.449
1ST QUARTILE :	0.82	2.28	1.51	0.13	0.14	0.09	0.05	0.060	0.044
2ND QUARTILE :	2.04	2.89	1.99	0.16	0.23	0.13	0.09	0.081	0.080
3RD QUARTILE :	3.34	3.42	2.71	0.24	0.28	0.23	0.20	0.100	0.131

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	0.944	1.043	0.065	0.031	0.0067	0.01135	0.0020	0.026	0.00112
MINIMUM :	0.023	0.036	0.003	0.001	0.0016	0.00030	0.0001	0.002	0.00010
RANGE :	0.921	1.007	0.061	0.030	0.0051	0.01105	0.0019	0.023	0.00102
ARITH. MEAN :	0.322	0.268	0.033	0.010	0.0039	0.00289	0.0007	0.014	0.00063
ARITH. STD. DEV :	0.300	0.298	0.014	0.009	0.0016	0.00322	0.0004	0.006	0.00029
GEOM. MEAN :	0.201	0.155	0.028	0.008	0.0036	0.00178	0.0006	0.013	0.00054
GEOM. STD. DEV. :	2.995	2.996	2.008	2.423	1.5239	2.83942	1.8043	1.823	1.91649
1ST QUARTILE :	0.116	0.063	0.028	0.005	0.0026	0.00100	0.0006	0.010	0.00039
2ND QUARTILE :	0.181	0.106	0.032	0.006	0.0037	0.00162	0.0007	0.013	0.00055
3RD QUARTILE :	0.419	0.384	0.036	0.011	0.0043	0.00247	0.0007	0.017	0.00081

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : KILLARNEY/CUMULATIVE/LO-VOL #23

PERIOD OF REPORT : FEB 28,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	9	9	9	9	9	9	9	8	9
MAXIMUM :	12.25	4.79	7.26	0.70	0.59	0.65	0.14	0.104	0.374
MINIMUM :	0.60	1.88	1.41	0.24	0.15	0.08	0.03	0.019	0.043
RANGE :	11.65	2.91	5.85	0.46	0.43	0.57	0.11	0.085	0.331
ARITH. MEAN :	5.28	3.09	3.67	0.37	0.33	0.26	0.07	0.068	0.150
ARITH. STD. DEV :	4.24	1.06	1.98	0.14	0.17	0.20	0.04	0.029	0.102
GEOM. MEAN :	3.51	2.93	3.20	0.35	0.29	0.21	0.07	0.061	0.121
GEOM. STD. DEV. :	2.90	1.40	1.77	1.39	1.67	2.05	1.59	1.743	2.038
1ST QUARTILE :	1.39	2.21	1.94	0.27	0.18	0.11	0.05	0.049	0.058
2ND QUARTILE :	3.10	2.53	2.76	0.33	0.26	0.18	0.06	0.071	0.135
3RD QUARTILE :	8.39	3.58	4.93	0.39	0.40	0.28	0.07	0.090	0.175

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANESE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	9	9	9	9	9	9	9	9	9
MAXIMUM :	0.342	0.457	0.061	0.015	0.0149	0.02680	0.0030	0.027	0.00137
MINIMUM :	0.053	0.035	0.011	0.001	0.0019	0.00079	0.0005	0.008	0.00027
RANGE :	0.289	0.422	0.050	0.014	0.0130	0.02601	0.0025	0.019	0.00110
ARITH. MEAN :	0.134	0.127	0.025	0.006	0.0057	0.00474	0.0012	0.015	0.00073
ARITH. STD. DEV :	0.098	0.135	0.015	0.004	0.0038	0.00834	0.0009	0.006	0.00039
GEOM. MEAN :	0.110	0.090	0.022	0.005	0.0049	0.00233	0.0010	0.014	0.00064
GEOM. STD. DEV. :	1.905	2.277	1.632	2.122	1.8027	2.89660	1.9058	1.511	1.73568
1ST QUARTILE :	0.059	0.048	0.015	0.003	0.0033	0.00114	0.0006	0.010	0.00042
2ND QUARTILE :	0.099	0.063	0.021	0.005	0.0047	0.00149	0.0007	0.012	0.00056
3RD QUARTILE :	0.125	0.114	0.025	0.005	0.0061	0.00293	0.0010	0.018	0.00084

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GOWGANDA/CUMULATIVE/LO-VOL #25

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	10	10	10	10	10	10	10	10	10
MAXIMUM :	39.22	24.74	27.86	1.81	1.32	1.42	0.59	0.302	0.495
MINIMUM :	0.93	1.33	0.91	0.06	0.09	0.03	0.02	0.025	0.024
RANGE :	38.29	23.41	26.95	1.76	1.23	1.40	0.57	0.278	0.471
ARITH. MEAN :	7.75	4.60	5.41	0.37	0.31	0.24	0.10	0.068	0.149
ARITH. STD. DEV :	11.27	7.12	7.96	0.52	0.37	0.42	0.17	0.083	0.147
GEOM. MEAN :	4.50	2.84	3.35	0.22	0.22	0.12	0.06	0.049	0.099
GEOM. STD. DEV. :	2.74	2.31	2.42	2.61	2.15	2.99	2.41	1.988	2.595
1ST QUARTILE :	1.98	1.57	1.92	0.11	0.13	0.04	0.04	0.033	0.038
2ND QUARTILE :	4.29	2.52	3.34	0.18	0.17	0.12	0.05	0.044	0.103
3RD QUARTILE :	6.31	3.01	3.94	0.29	0.23	0.15	0.06	0.052	0.147

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	10	10	10	10	10	10	10	10	10
MAXIMUM :	1.540	1.358	0.093	0.038	0.0440	0.00357	0.0055	0.088	0.00605
MINIMUM :	0.029	0.019	0.009	0.002	0.0021	0.00028	0.0001	0.008	0.00044
RANGE :	1.511	1.339	0.085	0.037	0.0419	0.00329	0.0054	0.080	0.00561
ARITH. MEAN :	0.231	0.213	0.026	0.007	0.0083	0.00135	0.0010	0.020	0.00126
ARITH. STD. DEV :	0.462	0.406	0.025	0.011	0.0127	0.00110	0.0016	0.024	0.00170
GEOM. MEAN :	0.097	0.090	0.020	0.005	0.0051	0.00096	0.0006	0.015	0.00085
GEOM. STD. DEV. :	3.144	3.418	2.000	2.438	2.3404	2.51181	2.5217	1.949	2.14116
1ST QUARTILE :	0.037	0.027	0.010	0.002	0.0031	0.00031	0.0004	0.010	0.00046
2ND QUARTILE :	0.090	0.093	0.019	0.004	0.0041	0.00104	0.0006	0.013	0.00074
3RD QUARTILE :	0.132	0.131	0.023	0.006	0.0054	0.00170	0.0006	0.015	0.00087

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MOONBEAM/CUMULATIVE/LO-VOL #27

PERIOD OF REPORT : FEB 28,84 TO JAN 3,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	10	10	10	10	10	10	10	10	10
MAXIMUM :	2.33	3.07	1.69	0.22	0.44	0.81	0.25	0.098	0.306
MINIMUM :	0.16	1.22	0.48	0.03	0.07	0.10	0.06	0.024	0.041
RANGE :	2.17	1.85	1.20	0.19	0.37	0.71	0.18	0.074	0.266
ARITH. MEAN :	1.10	1.90	1.18	0.10	0.19	0.54	0.16	0.053	0.105
ARITH. STD. DEV :	0.76	0.60	0.40	0.05	0.11	0.24	0.06	0.020	0.078
GEOM. MEAN :	0.82	1.82	1.11	0.09	0.17	0.47	0.15	0.050	0.088
GEOM. STD. DEV. :	2.47	1.37	1.50	1.81	1.70	1.92	1.56	1.453	1.824
1ST QUARTILE :	0.35	1.30	0.81	0.06	0.12	0.31	0.10	0.041	0.054
2ND QUARTILE :	1.13	1.95	1.24	0.10	0.15	0.60	0.18	0.050	0.082
3RD QUARTILE :	1.52	2.08	1.42	0.11	0.22	0.71	0.20	0.055	0.122

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	10	10	10	10	10	10	10	10	10
MAXIMUM :	0.319	0.484	0.020	0.009	0.0064	0.00282	0.0009	0.015	0.00054
MINIMUM :	0.028	0.039	0.006	0.002	0.0004	0.00031	0.0001	0.004	0.00018
RANGE :	0.290	0.445	0.014	0.007	0.0059	0.00251	0.0008	0.011	0.00036
ARITH. MEAN :	0.165	0.207	0.011	0.006	0.0029	0.00127	0.0006	0.007	0.00032
ARITH. STD. DEV :	0.089	0.130	0.005	0.002	0.0018	0.00105	0.0002	0.003	0.00010
GEOM. MEAN :	0.137	0.167	0.010	0.005	0.0023	0.00088	0.0005	0.007	0.00030
GEOM. STD. DEV. :	2.068	2.108	1.496	1.538	2.1190	2.57393	1.7273	1.537	1.36261
1ST QUARTILE :	0.085	0.093	0.007	0.004	0.0017	0.00034	0.0004	0.005	0.00023
2ND QUARTILE :	0.198	0.225	0.010	0.006	0.0021	0.00082	0.0007	0.007	0.00032
3RD QUARTILE :	0.213	0.256	0.013	0.007	0.0038	0.00202	0.0007	0.008	0.00035

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : ATTAWAPISKAT/CUMULATIVE/LO-VOL #28

PERIOD OF REPORT : JAN 3,84 TO FEB 28,84

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	1	1	1	1	1	1	1	1	1
MAXIMUM :	0.32	1.38	0.62	0.03	0.46	0.10	0.04	0.181	0.238
MINIMUM :	0.32	1.38	0.62	0.03	0.46	0.10	0.04	0.181	0.238
RANGE :	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000
ARITH. MEAN :	*****	*****	*****	*****	*****	*****	*****	*****	*****
ARITH. STD. DEV :	*****	*****	*****	*****	*****	*****	*****	*****	*****
GEOM. MEAN :	*****	*****	*****	*****	*****	*****	*****	*****	*****
GEOM. STD. DEV. :	*****	*****	*****	*****	*****	*****	*****	*****	*****
1ST QUARTILE :	*****	*****	*****	*****	*****	*****	*****	*****	*****
2ND QUARTILE :	*****	*****	*****	*****	*****	*****	*****	*****	*****
3RD QUARTILE :	*****	*****	*****	*****	*****	*****	*****	*****	*****

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	1	1	1	1	1	1	1	1	1
MAXIMUM :	0.022	0.009	0.012	0.003	0.0038	0.00048	0.0010	0.019	0.00057
MINIMUM :	0.022	0.009	0.012	0.003	0.0038	0.00048	0.0010	0.019	0.00057
RANGE :	0.000	0.000	0.000	0.000	0.0000	0.00000	0.0000	0.000	0.00000
ARITH. MEAN :	*****	*****	*****	*****	*****	*****	*****	*****	*****
ARITH. STD. DEV :	*****	*****	*****	*****	*****	*****	*****	*****	*****
GEOM. MEAN :	*****	*****	*****	*****	*****	*****	*****	*****	*****
GEOM. STD. DEV. :	*****	*****	*****	*****	*****	*****	*****	*****	*****
1ST QUARTILE :	*****	*****	*****	*****	*****	*****	*****	*****	*****
2ND QUARTILE :	*****	*****	*****	*****	*****	*****	*****	*****	*****
3RD QUARTILE :	*****	*****	*****	*****	*****	*****	*****	*****	*****

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GERALDTON/CUMULATIVE/LO-VOL #30

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES	13	13	13	13	13	13	13	13	13
MAXIMUM	1.49	2.83	1.23	0.26	0.26	0.50	0.10	0.085	0.157
MINIMUM	0.01	0.22	0.47	0.04	0.04	0.03	0.01	0.004	0.050
RANGE	1.48	2.61	0.76	0.22	0.22	0.47	0.08	0.081	0.106
ARITH. MEAN	0.55	1.40	0.75	0.11	0.12	0.20	0.05	0.039	0.092
ARITH. STD. DEV	0.48	0.73	0.24	0.06	0.06	0.14	0.03	0.028	0.032
GEOM. MEAN	0.28	1.18	0.71	0.09	0.11	0.15	0.04	0.028	0.087
GEOM. STD. DEV.	5.04	2.00	1.35	1.63	1.58	2.39	1.98	2.638	1.414
1ST QUARTILE	0.16	0.89	0.57	0.07	0.09	0.08	0.02	0.019	0.065
2ND QUARTILE	0.39	1.36	0.65	0.09	0.10	0.16	0.04	0.031	0.083
3RD QUARTILE	0.82	1.62	0.83	0.11	0.12	0.27	0.06	0.042	0.107

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADIUM UG/M**3
# OF SAMPLES	13	13	13	13	13	13	13	13	13
MAXIMUM	0.164	0.166	0.027	0.007	0.0039	0.00315	0.0010	0.008	0.00050
MINIMUM	0.011	0.004	0.001	0.000	0.0009	0.00028	0.0003	0.001	0.00003
RANGE	0.153	0.161	0.026	0.006	0.0030	0.00287	0.0007	0.007	0.00047
ARITH. MEAN	0.057	0.052	0.006	0.003	0.0020	0.00090	0.0006	0.004	0.00020
ARITH. STD. DEV	0.048	0.049	0.006	0.002	0.0010	0.00080	0.0002	0.002	0.00012
GEOM. MEAN	0.041	0.029	0.004	0.002	0.0018	0.00067	0.0006	0.003	0.00016
GEOM. STD. DEV.	2.379	3.433	2.142	2.366	1.6325	2.15683	1.3698	2.069	2.08457
1ST QUARTILE	0.020	0.008	0.003	0.001	0.0012	0.00032	0.0006	0.002	0.00010
2ND QUARTILE	0.042	0.035	0.004	0.002	0.0016	0.00061	0.0006	0.003	0.00018
3RD QUARTILE	0.068	0.072	0.006	0.003	0.0023	0.00097	0.0007	0.004	0.00022

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORION/CUMULATIVE/LO-VOL #31

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES	13	13	13	13	13	13	13	13	13
MAXIMUM	1.66	2.90	1.22	0.19	0.33	0.80	0.74	0.112	0.303
MINIMUM	0.00	0.10	0.05	0.03	0.05	0.03	0.01	0.003	0.026
RANGE	1.66	2.81	1.17	0.16	0.28	0.77	0.73	0.108	0.277
ARITH. MEAN	0.54	1.50	0.77	0.09	0.12	0.20	0.18	0.050	0.094
ARITH. STD. DEV	0.58	0.82	0.34	0.05	0.07	0.21	0.24	0.033	0.079
GEOM. MEAN	0.32	1.11	0.64	0.08	0.11	0.13	0.08	0.034	0.072
GEOM. STD. DEV.	4.20	2.81	2.26	1.78	1.54	2.71	3.96	3.027	2.063
1ST QUARTILE	0.09	1.02	0.52	0.05	0.08	0.05	0.03	0.020	0.043
2ND QUARTILE	0.21	1.49	0.71	0.08	0.11	0.11	0.07	0.049	0.059
3RD QUARTILE	0.88	1.98	1.05	0.12	0.13	0.25	0.17	0.062	0.100

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES	13	13	13	13	13	13	13	13	13
MAXIMUM	0.439	1.010	0.011	0.017	0.0140	0.00287	0.0010	0.012	0.00033
MINIMUM	0.014	0.009	0.003	0.001	0.0003	0.00032	0.0003	0.001	0.00003
RANGE	0.425	1.001	0.008	0.016	0.0137	0.00255	0.0007	0.011	0.00030
ARITH. MEAN	0.138	0.209	0.007	0.006	0.0028	0.00130	0.0006	0.005	0.00017
ARITH. STD. DEV	0.156	0.284	0.003	0.006	0.0038	0.00084	0.0002	0.003	0.00009
GEOM. MEAN	0.065	0.073	0.007	0.003	0.0015	0.00101	0.0006	0.004	0.00014
GEOM. STD. DEV.	3.818	5.315	1.514	2.997	3.2034	2.24409	1.3843	2.060	2.08287
1ST QUARTILE	0.017	0.013	0.005	0.001	0.0007	0.00035	0.0006	0.002	0.00011
2ND QUARTILE	0.035	0.044	0.007	0.002	0.0012	0.00123	0.0007	0.004	0.00020
3RD QUARTILE	0.165	0.277	0.009	0.008	0.0024	0.00174	0.0007	0.007	0.00022

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EAR FALLS/CUMULATIVE/LO-VOL #35

PERIOD OF REPORT : JAN 4,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	1.31	2.51	1.32	0.28	0.32	0.38	0.13	0.613	0.248
MINIMUM :	0.00	0.33	0.28	0.03	0.07	0.04	0.01	0.004	0.031
RANGE :	1.31	2.18	1.04	0.25	0.25	0.34	0.12	0.609	0.217
ARITH. MEAN :	0.38	1.23	0.60	0.11	0.14	0.14	0.06	0.083	0.092
ARITH. STD. DEV :	0.46	0.64	0.32	0.07	0.07	0.11	0.04	0.160	0.068
GEOM. MEAN :	0.26	1.06	0.54	0.09	0.13	0.11	0.05	0.042	0.075
GEOM. STD. DEV. :	4.53	1.84	1.64	1.80	1.55	2.11	2.09	2.824	1.891
1ST QUARTILE :	0.01	0.84	0.35	0.06	0.10	0.06	0.03	0.032	0.045
2ND QUARTILE :	0.15	1.06	0.44	0.08	0.12	0.10	0.04	0.040	0.063
3RD QUARTILE :	0.46	1.42	0.75	0.13	0.15	0.15	0.06	0.046	0.083

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	0.276	0.355	0.020	0.011	0.0049	0.00367	0.0009	0.009	0.00040
MINIMUM :	0.006	0.012	0.003	0.001	0.0003	0.00029	0.0001	0.002	0.00003
RANGE :	0.270	0.343	0.017	0.010	0.0046	0.00338	0.0007	0.007	0.00037
ARITH. MEAN :	0.108	0.124	0.011	0.005	0.0018	0.00130	0.0006	0.005	0.00019
ARITH. STD. DEV :	0.093	0.128	0.004	0.003	0.0015	0.00113	0.0002	0.002	0.00010
GEOM. MEAN :	0.070	0.066	0.010	0.004	0.0013	0.00087	0.0005	0.004	0.00016
GEOM. STD. DEV. :	2.933	3.458	1.645	2.149	2.4898	2.59933	1.6678	1.702	1.93614
1ST QUARTILE :	0.034	0.025	0.008	0.002	0.0007	0.00031	0.0005	0.002	0.00012
2ND QUARTILE :	0.064	0.035	0.009	0.004	0.0015	0.00092	0.0006	0.003	0.00017
3RD QUARTILE :	0.133	0.159	0.013	0.004	0.0022	0.00179	0.0006	0.006	0.00023

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PICKLE LAKE/CUMULATIVE/LO-VOL #36

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	9	9	9	9	9	9	9	9	9
MAXIMUM :	2.35	2.67	1.85	0.37	0.28	0.51	0.15	0.080	0.217
MINIMUM :	0.01	0.52	0.18	0.03	0.08	0.04	0.02	0.006	0.037
RANGE :	2.35	2.15	1.66	0.34	0.21	0.48	0.14	0.074	0.181
ARITH. MEAN :	0.99	1.22	0.90	0.11	0.16	0.19	0.06	0.031	0.115
ARITH. STD. DEV :	0.89	0.73	0.62	0.10	0.06	0.16	0.04	0.021	0.071
GEOM. MEAN :	0.27	1.05	0.69	0.08	0.15	0.13	0.05	0.025	0.095
GEOM. STD. DEV. :	12.10	1.77	2.32	2.04	1.49	2.58	1.93	2.029	1.935
1ST QUARTILE :	0.02	0.61	0.30	0.05	0.12	0.05	0.03	0.019	0.054
2ND QUARTILE :	0.92	0.95	0.77	0.06	0.16	0.12	0.04	0.023	0.076
3RD QUARTILE :	1.28	1.32	1.19	0.10	0.17	0.22	0.06	0.035	0.158

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	9	9	9	9	9	9	9	9	9
MAXIMUM :	0.330	0.219	0.018	0.006	0.0114	0.00370	0.0012	0.007	0.00096
MINIMUM :	0.018	0.010	0.008	0.001	0.0005	0.00033	0.0001	0.001	0.00011
RANGE :	0.313	0.209	0.010	0.005	0.0110	0.00337	0.0011	0.006	0.00085
ARITH. MEAN :	0.095	0.071	0.011	0.003	0.0033	0.00151	0.0006	0.003	0.00028
ARITH. STD. DEV :	0.108	0.086	0.003	0.002	0.0037	0.00139	0.0003	0.002	0.00027
GEOM. MEAN :	0.057	0.037	0.011	0.002	0.0021	0.00096	0.0005	0.003	0.00022
GEOM. STD. DEV. :	2.898	3.374	1.303	1.858	2.7032	2.84735	2.0853	1.725	1.94325
1ST QUARTILE :	0.022	0.013	0.009	0.002	0.0010	0.00035	0.0004	0.002	0.00014
2ND QUARTILE :	0.037	0.021	0.010	0.002	0.0018	0.00068	0.0006	0.003	0.00018
3RD QUARTILE :	0.090	0.066	0.011	0.002	0.0025	0.00192	0.0007	0.004	0.00023

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : TURKEY LAKE/CUMULATIVE/LO-VOL #37

PERIOD OF REPORT : JAN 4,84 TO JAN 1,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	6.15	3.87	3.78	0.78	0.43	0.24	0.07	0.137	0.241
MINIMUM :	0.00	1.24	0.62	0.10	0.03	0.05	0.02	0.025	0.028
RANGE :	6.15	2.63	3.16	0.69	0.40	0.19	0.05	0.112	0.213
ARITH. MEAN :	2.08	2.43	1.85	0.26	0.18	0.14	0.04	0.058	0.095
ARITH. STD. DEV. :	2.08	0.91	1.10	0.19	0.10	0.06	0.02	0.037	0.060
GEOM. MEAN :	1.50	2.28	1.58	0.21	0.15	0.12	0.04	0.049	0.081
GEOM. STD. DEV. :	2.38	1.47	1.81	1.82	1.91	1.67	1.45	1.779	1.813
1ST QUARTILE :	0.57	1.74	1.07	0.12	0.11	0.08	0.03	0.032	0.054
2ND QUANTILE :	1.14	2.02	1.52	0.20	0.15	0.14	0.04	0.037	0.067
3RD QUARTILE :	2.04	3.13	1.90	0.25	0.19	0.18	0.05	0.062	0.114

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	13	13	13	13	13	13	13	13	13
MAXIMUM :	0.182	0.205	0.022	0.008	0.0051	0.00855	0.0010	0.022	0.00342
MINIMUM :	0.020	0.010	0.006	0.002	0.0011	0.00033	0.0001	0.001	0.00016
RANGE :	0.162	0.195	0.016	0.006	0.0040	0.00821	0.0008	0.021	0.00326
ARITH. MEAN :	0.077	0.071	0.013	0.004	0.0027	0.00150	0.0007	0.010	0.00057
ARITH. STD. DEV. :	0.048	0.063	0.005	0.002	0.0014	0.00224	0.0002	0.006	0.00087
GEOM. MEAN :	0.064	0.047	0.012	0.004	0.0024	0.00083	0.0006	0.008	0.00037
GEOM. STD. DEV. :	1.917	2.676	1.529	1.454	1.6889	2.74342	1.6142	2.352	2.14579
1ST QUARTILE :	0.036	0.022	0.009	0.003	0.0015	0.00035	0.0007	0.006	0.00026
2ND QUARTILE :	0.059	0.036	0.013	0.004	0.0020	0.00060	0.0007	0.007	0.00029
3RD QUARTILE :	0.097	0.119	0.014	0.005	0.0035	0.00115	0.0007	0.013	0.00037

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : OTTER ISLAND/CUMULATIVE/LO-VOL #38

PERIOD OF REPORT : APR 24,84 TO NOV 6,84

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	7	7	7	7	7	7	7	7	6
MAXIMUM :	2.24	2.77	1.96	0.30	0.13	0.26	0.07	0.228	0.071
MINIMUM :	0.00	0.00	0.00	0.00	0.07	0.06	0.01	0.003	0.019
RANGE :	2.24	2.77	1.96	0.30	0.06	0.20	0.05	0.225	0.052
ARITH. MEAN :	0.74	1.68	0.93	0.17	0.10	0.15	0.04	0.069	0.053
ARITH. STD. DEV :	0.76	1.01	0.66	0.11	0.02	0.08	0.02	0.073	0.019
GEOM. MEAN :	0.93	1.65	0.93	0.23	0.10	0.13	0.03	0.041	0.049
GEOM. STD. DEV. :	1.57	1.59	1.94	1.64	1.24	1.74	1.69	3.612	1.634
1ST QUARTILE :	0.00	0.35	0.12	0.05	0.08	0.07	0.02	0.020	0.033
2ND QUARTILE :	0.59	1.72	0.95	0.14	0.09	0.12	0.03	0.045	0.058
3RD QUARTILE :	0.89	2.42	1.21	0.24	0.11	0.20	0.05	0.062	0.064

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	7	7	7	7	7	7	7	7	7
MAXIMUM :	0.169	0.170	0.033	0.007	0.0089	0.00269	0.0009	0.011	0.00030
MINIMUM :	0.011	0.001	0.001	0.000	0.0020	0.00031	0.0001	0.002	0.00005
RANGE :	0.159	0.169	0.032	0.007	0.0069	0.00238	0.0008	0.009	0.00025
ARITH. MEAN :	0.081	0.061	0.010	0.004	0.0039	0.00108	0.0007	0.005	0.00019
ARITH. STD. DEV :	0.058	0.057	0.011	0.003	0.0024	0.00088	0.0003	0.004	0.00010
GEOM. MEAN :	0.060	0.025	0.006	0.003	0.0034	0.00081	0.0006	0.004	0.00016
GEOM. STD. DEV. :	2.563	7.081	3.324	2.912	1.6721	2.27613	1.9672	2.085	2.13764
1ST QUARTILE :	0.025	0.001	0.003	0.001	0.0021	0.00034	0.0004	0.002	0.00005
2ND QUARTILE :	0.056	0.051	0.006	0.003	0.0027	0.00060	0.0007	0.003	0.00020
3RD QUARTILE :	0.120	0.075	0.011	0.006	0.0042	0.00150	0.0008	0.008	0.00026

PART IV

SUMMARY STATISTICS OF OBSERVED CONCENTRATION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/CUMULATIVE/LO-VOL.

PERIOD OF REPORT : JAN 2,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES	35	35	35	34	35	35	35	35	34
MAXIMUM	29.25	9.17	16.32	1.81	1.55	5.49	0.35	1.387	0.577
MINIMUM	0.42	2.03	0.98	0.16	0.09	0.04	0.02	0.026	0.039
RANGE	28.83	7.14	15.35	1.66	1.46	5.45	0.32	1.361	0.538
ARITH. MEAN	7.27	4.44	5.11	0.65	0.43	0.88	0.09	0.121	0.171
ARITH. STD. DEV	8.11	1.78	4.14	0.42	0.39	1.27	0.08	0.223	0.138
GEOM. MEAN	3.79	4.12	3.84	0.53	0.32	0.40	0.07	0.084	0.130
GEOM. STD. DEV.	3.37	1.48	2.14	1.95	2.12	3.61	2.08	1.893	2.091
1ST QUARTILE	1.27	2.98	2.01	0.34	0.17	0.13	0.04	0.055	0.063
2ND QUARTILE	2.99	4.09	3.32	0.54	0.32	0.38	0.07	0.078	0.110
3RD QUARTILE	9.49	5.35	6.31	0.82	0.48	0.98	0.12	0.110	0.229

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES	35	35	35	35	35	35	35	35	35
MAXIMUM	0.738	0.877	0.209	0.043	0.0219	0.01012	0.0039	0.129	0.00401
MINIMUM	0.023	0.013	0.012	0.003	0.0010	0.00029	0.0003	0.006	0.00025
RANGE	0.715	0.864	0.197	0.041	0.0208	0.00983	0.0036	0.124	0.00376
ARITH. MEAN	0.172	0.157	0.052	0.010	0.0040	0.00201	0.0011	0.025	0.00068
ARITH. STD. DEV	0.165	0.185	0.043	0.008	0.0039	0.00188	0.0008	0.024	0.00061
GEOM. MEAN	0.118	0.087	0.041	0.008	0.0031	0.00135	0.0009	0.019	0.00058
GEOM. STD. DEV.	2.414	3.033	2.003	1.919	1.9750	2.63509	1.7647	2.026	1.58582
1ST QUARTILE	0.054	0.031	0.022	0.005	0.0018	0.00034	0.0006	0.010	0.00042
2ND QUARTILE	0.114	0.071	0.038	0.008	0.0031	0.00181	0.0007	0.016	0.00054
3RD QUARTILE	0.257	0.212	0.065	0.013	0.0042	0.00246	0.0009	0.026	0.00069

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN REGION/CUMULATIVE/LO-VOL.

PERIOD OF REPORT : JAN 3,84 TO JAN 3,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	67	67	67	67	67	67	67	65	67
MAXIMUM :	39.22	24.74	27.86	1.81	1.32	1.42	0.59	0.302	0.495
MINIMUM :	0.00	0.12	0.19	0.03	0.03	0.03	0.01	0.003	0.021
RANGE :	39.22	24.62	27.67	1.79	1.29	1.40	0.58	0.299	0.474
ARITH. MEAN :	3.39	2.98	2.69	0.27	0.25	0.24	0.10	0.067	0.127
ARITH. STD. DEV :	5.25	2.99	3.44	0.26	0.20	0.24	0.10	0.046	0.107
GEOM. MEAN :	1.70	2.41	1.97	0.20	0.20	0.17	0.07	0.055	0.096
GEOM. STD. DEV. :	3.96	1.92	2.09	2.23	1.89	2.34	2.29	1.922	2.117
1ST QUARTILE :	0.77	1.85	1.28	0.12	0.13	0.10	0.04	0.036	0.054
2ND QUARTILE :	1.89	2.46	1.82	0.20	0.18	0.16	0.06	0.052	0.085
3RD QUARTILE :	4.63	3.37	3.32	0.33	0.29	0.29	0.11	0.081	0.152

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	67	67	67	67	67	67	67	67	67
MAXIMUM :	1.540	1.358	0.093	0.038	0.0440	0.02680	0.0055	0.088	0.00605
MINIMUM :	0.020	0.009	0.003	0.001	0.0004	0.00027	0.0001	0.001	0.00010
RANGE :	1.520	1.349	0.090	0.038	0.0435	0.02653	0.0054	0.087	0.00595
ARITH. MEAN :	0.176	0.160	0.022	0.006	0.0042	0.00219	0.0008	0.013	0.00066
ARITH. STD. DEV :	0.239	0.225	0.015	0.006	0.0054	0.00368	0.0007	0.011	0.00081
GEOM. MEAN :	0.102	0.085	0.018	0.005	0.0031	0.00120	0.0006	0.011	0.00049
GEOM. STD. DEV. :	2.622	3.129	1.887	2.034	1.9934	2.79562	1.8593	1.962	1.95681
1ST QUARTILE :	0.047	0.036	0.011	0.003	0.0019	0.00041	0.0005	0.007	0.00031
2ND QUARTILE :	0.100	0.093	0.019	0.005	0.0032	0.00120	0.0007	0.012	0.00046
3RD QUARTILE :	0.185	0.193	0.027	0.007	0.0049	0.00247	0.0007	0.016	0.00074

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/CUMULATIVE/LO-VOL.

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES	55	55	55	55	55	55	55	55	54
MAXIMUM	2.35	2.90	1.96	0.37	0.33	0.80	0.74	0.613	0.303
MINIMUM	0.00	0.00	0.00	0.00	0.04	0.03	0.01	0.003	0.019
RANGE	2.35	2.90	1.96	0.37	0.29	0.78	0.73	0.610	0.284
ARITH. MEAN	0.61	1.39	0.77	0.11	0.13	0.18	0.08	0.054	0.092
ARITH. STD. DEV	0.63	0.76	0.42	0.08	0.06	0.15	0.13	0.085	0.061
GEOM. MEAN	0.33	1.16	0.67	0.10	0.12	0.13	0.05	0.033	0.077
GEOM. STD. DEV.	5.07	2.06	1.88	1.82	1.53	2.29	2.49	2.744	1.825
1ST QUARTILE	0.04	0.79	0.46	0.06	0.09	0.06	0.03	0.022	0.052
2ND QUARTILE	0.38	1.30	0.69	0.09	0.11	0.13	0.04	0.039	0.068
3RD QUARTILE	0.93	1.96	1.03	0.13	0.15	0.26	0.08	0.055	0.115

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES	55	55	55	55	55	55	55	55	55
MAXIMUM	0.439	1.010	0.033	0.017	0.0140	0.00370	0.0012	0.012	0.00096
MINIMUM	0.006	0.001	0.001	0.000	0.0003	0.00028	0.0001	0.001	0.00003
RANGE	0.432	1.009	0.032	0.017	0.0137	0.00342	0.0011	0.011	0.00093
ARITH. MEAN	0.098	0.110	0.009	0.004	0.0026	0.00121	0.0006	0.004	0.00020
ARITH. STD. DEV	0.104	0.165	0.006	0.004	0.0026	0.00100	0.0002	0.003	0.00014
GEOM. MEAN	0.058	0.045	0.007	0.003	0.0018	0.00086	0.0006	0.004	0.00016
GEOM. STD. DEV.	2.894	4.308	2.033	2.442	2.4533	2.36417	1.6321	1.915	2.00470
1ST QUARTILE	0.027	0.014	0.005	0.001	0.0010	0.00034	0.0006	0.002	0.00011
2ND QUARTILE	0.048	0.046	0.008	0.003	0.0017	0.00094	0.0006	0.003	0.00019
3RD QUARTILE	0.136	0.152	0.010	0.006	0.0029	0.00175	0.0007	0.006	0.00024

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/CUMULATIVE/LO-VOL.

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	37	38	37	38	38	38	38	38	38
MAXIMUM :	22.44	8.24	13.23	1.43	0.97	2.44	1.01	0.283	0.678
MINIMUM :	0.19	0.97	0.42	0.07	0.03	0.10	0.03	0.019	0.009
RANGE :	22.25	7.26	12.81	1.36	0.95	2.34	0.97	0.264	0.669
ARITH. MEAN :	4.26	3.97	3.47	0.54	0.38	0.57	0.16	0.107	0.205
ARITH. STD. DEV :	5.24	1.68	2.83	0.33	0.24	0.52	0.21	0.054	0.174
GEOM. MEAN :	2.32	3.62	2.69	0.43	0.31	0.40	0.10	0.094	0.144
GEOM. STD. DEV. :	3.09	1.57	2.05	2.08	2.02	2.37	2.30	1.693	2.463
1ST QUARTILE :	1.11	2.63	1.88	0.30	0.20	0.19	0.05	0.071	0.081
2ND QUARTILE :	2.15	3.75	2.52	0.49	0.31	0.46	0.09	0.096	0.136
3RD QUARTILE :	4.58	4.93	3.84	0.70	0.45	0.76	0.13	0.129	0.253

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	38	38	38	38	38	38	38	38	38
MAXIMUM :	0.381	0.462	0.148	0.062	0.0080	0.00569	0.0096	0.052	0.00096
MINIMUM :	0.037	0.016	0.013	0.003	0.0003	0.00028	0.0005	0.006	0.00017
RANGE :	0.344	0.446	0.135	0.059	0.0077	0.00540	0.0090	0.046	0.00079
ARITH. MEAN :	0.140	0.128	0.056	0.015	0.0037	0.00254	0.0020	0.021	0.00052
ARITH. STD. DEV :	0.088	0.110	0.033	0.015	0.0017	0.00145	0.0020	0.012	0.00018
GEOM. MEAN :	0.115	0.088	0.046	0.011	0.0032	0.00203	0.0014	0.018	0.00049
GEOM. STD. DEV. :	1.895	2.472	1.926	2.242	1.8128	2.16853	2.2790	1.785	1.43368
1ST QUARTILE :	0.067	0.042	0.027	0.006	0.0027	0.00140	0.0006	0.012	0.00037
2ND QUARTILE :	0.114	0.095	0.051	0.010	0.0034	0.00226	0.0011	0.018	0.00050
3RD QUARTILE :	0.178	0.177	0.073	0.018	0.0045	0.00339	0.0025	0.029	0.00066

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/CUMULATIVE/LO-VOL.

PERIOD OF REPORT : JAN 3,84 TO JAN 2,85

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	TOTAL SULPHUR UG/M**3	TOTAL N -NITRATE UG/M**3	CHLORIDE UG/M**3	CALCIUM UG/M**3	MAGNESIM UG/M**3	POTASSIM UG/M**3	SODIUM UG/M**3
# OF SAMPLES :	58	58	57	59	59	59	59	59	59
MAXIMUM :	32.81	12.50	18.17	1.93	1.05	2.00	0.49	0.274	0.426
MINIMUM :	0.75	2.11	2.08	0.22	0.25	0.14	0.04	0.037	0.047
RANGE :	32.06	10.39	16.09	1.71	0.80	1.86	0.45	0.237	0.379
ARITH. MEAN :	9.33	5.41	6.45	1.07	0.57	0.62	0.17	0.107	0.136
ARITH. STD. DEV :	7.18	2.08	3.64	0.35	0.20	0.31	0.09	0.055	0.076
GEOM. MEAN :	6.90	5.07	5.60	1.00	0.53	0.55	0.15	0.096	0.120
GEOM. STD. DEV. :	2.28	1.42	1.70	1.48	1.43	1.65	1.71	1.585	1.660
1ST QUARTILE :	3.52	3.96	3.82	0.82	0.39	0.38	0.10	0.067	0.079
2ND QUARTILE :	7.19	4.81	5.15	1.12	0.52	0.56	0.14	0.088	0.110
3RD QUARTILE :	12.75	6.38	8.11	1.28	0.70	0.79	0.23	0.132	0.183

	IRON UG/M**3	ALUMINUM UG/M**3	LEAD UG/M**3	MANGANSE UG/M**3	COPPER UG/M**3	NICKEL UG/M**3	VANADIUM UG/M**3	ZINC UG/M**3	CADMIUM UG/M**3
# OF SAMPLES :	59	59	59	59	59	59	59	59	59
MAXIMUM :	0.850	0.801	0.136	0.021	0.0087	0.00824	0.0044	0.075	0.00369
MINIMUM :	0.031	0.021	0.019	0.004	0.0005	0.00030	0.0006	0.011	0.00030
RANGE :	0.820	0.780	0.118	0.017	0.0082	0.00795	0.0038	0.065	0.00339
ARITH. MEAN :	0.206	0.164	0.055	0.011	0.0037	0.00225	0.0014	0.032	0.00075
ARITH. STD. DEV :	0.142	0.131	0.023	0.004	0.0016	0.00174	0.0008	0.015	0.00047
GEOM. MEAN :	0.169	0.128	0.051	0.010	0.0033	0.00170	0.0012	0.029	0.00067
GEOM. STD. DEV. :	1.891	2.030	1.492	1.479	1.6802	2.22470	1.7270	1.630	1.51376
1ST QUARTILE :	0.108	0.077	0.038	0.008	0.0024	0.00103	0.0007	0.019	0.00053
2ND QUARTILE :	0.169	0.117	0.049	0.010	0.0033	0.00195	0.0011	0.029	0.00063
3RD QUARTILE :	0.244	0.222	0.070	0.013	0.0048	0.00253	0.0018	0.044	0.00082

